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10/613,866	07/02/2003	Lenny Lipton	REAL0033	6251
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REAL D - Patent Department by Baker & McKenzie LLP 2001 Ross Avenue, Suite 2300 Dallas, TX 75201			RICE, ELISA M	
			ART UNIT	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

reald@bakernet.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/613,866	LIPTON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	ELISA M. RICE	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 14 October 2008.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-8 and 10-21 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-8 and 10-21 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

    1. Certified copies of the priority documents have been received.

    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/14/2008 has been entered.

### ***Response to Arguments***

#### **Applicant's Arguments:**

“Swift 1 is a scaling design rather than a format conversion design.” “Swift 1 does not receive an input image at a format converter configured to receive input images in multiple formats and convert input images in different formats into images having stereoscopic formats as required by the express language of claim 1, as amended” (Remarks, third and fourth paragraph of page 7).

#### **Examiner's Reply:**

As defined in the Merriam Webster dictionary, a format can be the shape, size, and general makeup (as of something printed). Conversion, as defined by the Merriam Webster dictionary is the process of changing from one form or function to another. In

addition, multiple formats such as monoscopic, line-interleaved, cross-eye, parallel, various anaglyph, page-flipping are also presented as shown in Figure 1. As discussed in Swift 1 in paragraph 54, "A stereo media file format may contain certain sub media such as VRR and blocks. An embodiment supports a stereoscopic media file that contains sub-media. **Specifically, a file structure is created to store and preserve various types of stereo media in various formats. Additionally, this file format can also store monoscopic media**, as well as audio or other data. This one file format can store multiple or single stereo/non-stereo media elements. FIG. 10 illustrates a VRR file 1000 that may contain a script 1002, a Stereo Still Image 1004, a Stereoscopic Animation/movie 1006, Stereoscopic Object Model 1008, a Thumbnail 1010, and Audio 1012. This embodiment also allows multiple resolution images to be stored in one media file or to be referenced (linked to) from one media file." In addition to paragraph 54, Applicant is also directed to paragraphs 51 and 52 of the Swift 1 reference, which also make clear that Swift 1 discloses receiving the input image having the first format at a format converter configured to receive input images in multiple formats and convert input images in different formats into images having stereoscopic formats. As the claims stand in their present recitation, they do not narrow the scope of the claims to preclude the Swift 1 reference.

**Applicant's Arguments:**

Swift 1 or Swift 2 do not teach "a map setting forth a predefined relationship between the first format and the second stereoscopic format." (Remarks, second paragraph of page 8)

**Examiner's Reply:**

While Swift 1 does not explicitly disclose "a map setting forth a predefined relationship between the first format and the second stereoscopic format.", a mapping from one format to another that is predefined is inherent to any kind of format conversion, including the one performed in Swift 1. Format conversions, of any type, rely on mapping setting forth a predefined relationship between the first format and the second format. Swift 2 only more explicitly illustrates this.

**Applicant's Arguments:**

It would not have been obvious to combine Swift 1, Swift 2, and Loveridge. (Remarks, fourth paragraph of page 8)

**Examiner's Reply:**

Both Swift 1 and Swift 2 are in the same field of endeavor of performing format conversions for stereoscopic imaging systems. Swift 1 inherently discloses a mapping setting forth a predefined between the pixels of an input image and the pixels of an output image, but does not specifically teach creating a map by using a matrix, which is one of many mapping available to establish a predefined relationship between an input

and output image, which is required in claim 2. It, therefore would have been obvious and logical to one of ordinary skill in the art to use a map created as a matrix as discussed in Swift 2 to implement the inherent mapping used in the format conversion of Swift 1. Loveridge discloses a method using multiple digital images, the basis of stereoscopic imaging, to produce a digital image with improved performance characteristics, a common goal or objective of all imaging systems and therefore is closely tied in both field of endeavor and problem solving area to the Swift 1 and Swift 2, making it a reference of particular relevancy in solving the common goals of Swift reference.

**Applicant's Arguments:**

"It is impermissible hindsight reasoning to pick a feature here and there from among the references to construct a hypothetical combination which obviates the claims" (Remarks, page 9, second paragraph)... "The Examiner has failed to avoid the effects of hindsight reasoning in fashioning the alleged combination of references and general knowledge in the art," (Remarks, last paragraph, page 10).

**Examiner's Reply:**

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was

within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Swift 1 inherently discloses converting each pixel of the input image to a corresponding pixel of the output image in accord with a map setting forth a predefined relationship between the first and the second stereoscopic format. As long as there is a conversion from one format to another, there is mapping between the input pixel to the output pixels through a predefined relationship. Swift 2 is relied on in claim 1 simply to show this inherent feature in claim 1. In claim 2, where the map is further specified to be a matrix, the combination is made between Swift 1 and Swift 2 and, in this case, it would be obvious and commonplace to use a matrix as the mapping since this is one of several methods commonly available to an ordinary practitioner to effect a format conversion.

### ***Claim Objections***

2. The objection to claim 10 has been withdrawn in light of the correction made by the Applicant.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1 and 16** are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled “Clarification of ‘Processes’ under 35 U.S.C. 101” – publicly available at USPTO.GOV, “memorandum to examining corp”). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. In order for a process to be “tied” to another statutory category, the structure of another statutory category should be positively recited in a step or steps significant to the basic inventive concept, and NOT just in association with statements of intended use or purpose, insignificant pre or post solution activity, or implicitly.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1, 7, 15, 16 are rejected under 35 U.S.C. 102(e) as being anticipated over Swift et al (US 2002/0122585 A1), hereinafter referred to as Swift 1 (**In order, to illustrate the inherency of an element of the claim, Swift et al. (US 6556236), hereinafter referred to as Swift 2, will also be utilized**)

**Regarding claim 1 and claim 16,** Swift 1 discloses a method for converting an input image having a first format to an output image having a second stereoscopic format, wherein the input image and the output image are each defined by a plurality of pixels, comprising:

receiving the input image having the first format at a format converter (Swift 1, script buttons, paragraph 50) configured to receive input images in multiple formats (Swift 1, Fig. 1, item 12; Swift 1, “can store and preserve various types of stero media in various formats”,paragraph 54) and convert input images in different formats into images having stereoscopic formats (Swift 1, Fig. 1, num. 16, 18, 20); converting each pixel of the input image to a corresponding pixel for the output image, thereby creating the output image (Swift 1, “monoscopic and stereoscopic viewing that allows greater distribution since both types can be viewed within one system; save and

conversion of one format into another from the Internet using a local drive from the original source, "paragraph 27; Swift 1, paragraph 51 and 52); formatting the output image (recombined scaled left and right media, Swift 1, figure 6, numeral 508, paragraph 0041); and displaying the formatted output image (Swift 1, "displays it on the user side according to the user's display preferences," paragraph 52).

Swift 1 inherently discloses using a map to set forth a predefined relationship between the first format and the second stereoscopic format. Turning to Figure 1, in order for the first media format to be converted to one of several stereoscopic formats such as line-interleaved, cross-eye, etc., the processor will need to use a formula, mathematical equation or predefined relationship of some sort to get from the input format (which in this case would be item 12, of fig. 1 to one of the stereoscopic formats depicted on the right hand side, such as item 18, of figure 1. In order words, a predefined relationship, which will vary depending on the input format and output format, will be relied upon by the processor to convert the input image to the output image. As discussed in paragraph 50, script buttons are used to change the formatting and by necessity, the script buttons, (i.e. format converter) require a predetermined relationship to map the pixel elements of an input image to those of the second format output image. A formula of some kind is utilized by the script button to effect this change (See Swift 2's Fig. 4C and 5A's whose various format conversions illustrate quite well the necessity of a predefined mapping relationship between input format images and output format images).

**Regarding claim 7**, Swift 1 discloses the method of claim 1, wherein the input image is a planar image, further comprising creating a stereo image pair from the planar image (Swift 1, paragraph 46, first sentence; Swift 1, “converting a 2D object movie to a 3D stereoscopic object movie”, paragraph 30).

**Regarding claim 15**, Swift 1 discloses the method of claim 1, wherein the first format is planar (Swift 1, “converting a 2D object movie to a 3D stereoscopic object movie”, paragraph 30).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 2, 13, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swift et al (US 2002/0122585 A1), hereinafter referred to as Swift 1, and Swift et al. (US 6556236), hereinafter referred to as Swift 2.

**Regarding claim 2 and 17**, Swift 1 discloses a method according to Claim 1, but does not disclose wherein the converting step includes creating the map specifically as a **matrix** that sets forth predefined relationships between one type of format as an input image and another type of stereoscopic format as an output image.

Swift 2 teaches wherein the converting step includes creating the map specifically as a **matrix** that sets forth predefined relationships between one type of format as an input image and another type of stereoscopic format as an output image (Swift 2, Fig. 4C; Swift 2, Fig. 5A; Swift 2, “The object mappings mmcr and mmcl can be either physical optical imaging mappings or virtual geometric mappings implemented with software or hardware”, column 10, lines 51-54; Swift 2, column 16, line 48-50, Swift 2, column 16, lines 45-48, Swift 2, column 16, lines 43-44; Swift 2, column 17, line 12-13; Swift 2, column 17, line 30-31).

Swift 1 and Swift 2 are both in the same field of endeavor of electronic stereoscopic systems. It, therefore, would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Swift 1 to use a map created as a matrix specifically since this is one of several methods commonly available

to implement a mapping to effect a format conversion as known to the ordinary practitioner in the art.

**Regarding claim 13**, Swift 1 discloses a device for converting an input image having a first format to an output image having a second stereoscopic format (Swift 1, Fig. 1), wherein the input image and the output image are each defined by a plurality of pixels (Swift 1, paragraph 32, last sentence) and using a processor (Swift 1, paragraph 73) configured to identify the first format of the input image and convert the input image to an output image having the second stereoscopic format (Swift 1, paragraph 52, first sentence; Swift, paragraph 3; Swift, paragraph 27, first sentence; Swift, Fig. 1).

Swift 2 teaches comprising a software-enabled (Swift 2, “The object mappings mmcr and mmcl can be either physical optical imaging mappings or virtual geometric mappings implemented with software or hardware”, column 10, lines 51-54) matrix that sets forth predefined relationships between one format for image input and a different format for image output (Swift 2, column 16, line 48-50, Swift 2, column 16, lines 45-48), wherein the different format is a stereoscopic format and convert the input image using the software-enabled matrix to an output image having the second stereoscopic format (Swift 2, column 17, line 12-13) and convert the input image using the software-enabled matrix to an output image having the second stereoscopic format (Swift 2, Fig. 4C; Swift 2, Fig. 5A)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Swift 1 to include the map setting forth a predefined relationship between the first format and the second stereoscopic format as taught by Swift 2 because, advantageously, the output values “can be evaluated in a massively parallel manner” (Swift 2, column 16, lines 43-44).

**Regarding claim 14**, the combination of Swift 1 and Swift 2 discloses a device according to claim 13, wherein the software-enabled matrix contains for each type of image format a pre-defined correspondence between a pixel from the input image and a pixel for the output image (Swift 2, column 17, line 12-13; Swift 2, column 17, line 30-31).

4. Claims 3-6, 8-12 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Swift et al (US 2002/0122585 A1) (Swift et al. (US 6556236)), further in view of Loveridge et al (US 5,982,941).

**Regarding claims 3-6**, while the combination of Swift 1 and Swift 2 discloses a method according to Claim 1, the combination of Swift 1 and Swift 2 does not disclose converting the color space of the input image; scaling the input image; creating additional views as needed; swapping views; preparing a presentation of the output image for a particular format type; centering the presentation; formatting the

presentation thereby creating a formatted output image; displaying the formatted output image; inverting the input image after the scaling step and before the creating; aligning the views after the creating step and before the swapping step; and arranging a predefined view wherein a single frame contains nine vies, then interzipping the views after the swapping step and before the preparing step.

Loveridge teaches converting the color space of the input image (Loveridge, figure 3, numeral 118); scaling the input image (Loveridge, figure 3, numeral 120); creating additional views as needed (Loveridge, figure 3, numeral 122); swapping views (Loveridge, figure 3, numeral 122, 124); preparing a presentation of the output image for a particular format type (Loveridge, figure 3, numeral 122, 124, column 6, lines 5-67); centering the presentation (Loveridge, figure 3, numeral 122, 124, column 6, lines 5-67); formatting the presentation thereby creating a formatted output image (Loveridge, figure 3, numeral 128); displaying the formatted output image (Loveridge, figure 3, numeral 82); inverting the input image after the scaling step and before the creating step (Loveridge, column 6, lines 9-67); aligning the views after the creating step and before the swapping step (Loveridge, column 6, lines 9-67) and arranging a predefined view wherein a single frame contains nine vies, then interzipping the views after the swapping step and before the preparing step (Loveridge, column 6, lines 9-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Swift 1 and Swift 2's converting step to include Loveridge's

method steps in order “to achieve improved performance characteristics, such as reduced noise, improved sharpness” as discussed in the Loveridge reference at col. 3, lines 61-67.

**Regarding claim 8**, while the combination of Swift 1 and Swift 2 discloses a method according to Claim 7, the combination of Swift 1 and Swift 2 does not disclose scaling the planar image by a fixed percentage to create a scaled image; copying the scaled image to create a complimentary image; shifting the complimentary image by a smaller percentage of the fixed percentage; extracting a centered image from the scaled image; and extracting a centered image from the shifted complimentary image.

Loveridge teaches scaling the planar image by a fixed percentage to create a scaled image (Loveridge, figure 3, numeral 120); copying the scaled image to create a complimentary image (Loveridge, figure 3, numeral 122); shifting the complimentary image by a smaller percentage of the fixed percentage (Loveridge, column 6, lines 9-67); extracting a centered image from the scaled image (Loveridge, figure 3, numeral 124); and extracting a centered image from the shifted complimentary image (Loveridge, column 6, lines 9-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Swift 1 and Swift 2's creating step to include Loveridge's method steps in order “to achieve improved performance characteristics, such as

reduced noise, improved sharpness" as discussed in the Loveridge reference at col. 3, lines 61-67.

**Regarding claim 10**, while the combination of Swift 1, Swift 2, and Loveridge discloses shifting the complimentary image by a smaller percentage of the fixed percentage, the combination of Swift 1, Swift 2, and Loveridge does not disclose expressly that the smaller percentage is half.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to utilize a smaller percentage that is half. Applicant has not disclosed that the smaller percentage being half provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the smaller percentage taught by Loveridge or the smaller percentage being half because both percentage perform the same function of reducing the complimentary image for display purposes.

Therefore, it would have been obvious to one of ordinary skill in this art to modify Loveridge to obtain the invention as specified in claim 10.

**Regarding claim 11**, the method claim is rejected under the same combinations, teachings, and motivation as claim 8.

**Regarding claim 12**, the method claim is rejected under the same combinations, teachings, and motivation as claim 10.

**Regarding claim 18-21**, while the combination of Swift 1 and Swift 2 discloses a method according to Claim 16, the combination of Swift 1 and Swift 2 does not disclose converting the color space of the input image; scaling the input image; creating additional views as needed; swapping views; preparing a presentation of the output image for a particular format type; centering the presentation; formatting the presentation thereby creating a formatted output image; displaying the formatted output image; inverting the input image after the scaling step and before the creating; aligning the views after the creating step and before the swapping step; and arranging a predefined view wherein a single frame contains nine views, then interzigging the views after the swapping step and before the preparing step.

Loveridge teaches converting the color space of the input image (Loveridge, figure 3, numeral 118); scaling the input image (Loveridge, figure 3, numeral 120); creating additional views as needed (Loveridge, figure 3, numeral 122); swapping views (Loveridge, figure 3, numeral 122, 124); preparing a presentation of the output image for a particular format type (Loveridge, figure 3, numeral 122, 124, column 6, lines 5-67); centering the presentation (Loveridge, figure 3, numeral 122, 124, column 6, lines 5-67);

formatting the presentation thereby creating a formatted output image (Loveridge, figure 3, numeral 128); displaying the formatted output image (Loveridge, figure 3, numeral 82); inverting the input image after the scaling step and before the creating step (Loveridge, column 6, lines 9-67); aligning the views after the creating step and before the swapping step (Loveridge, column 6, lines 9-67) and arranging a predefined view wherein a single frame contains nine views, then interzipping the views after the swapping step and before the preparing step (Loveridge, column 6, lines 9-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Swift 1 and Swift 2's converting step to include Loveridge's method steps in order "to achieve improved performance characteristics, such as reduced noise, improved sharpness" as discussed in the Loveridge reference at col. 3, lines 61-67.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELISA M. RICE whose telephone number is (571)270-1582. The examiner can normally be reached on 12:00-8:30p.m. EST Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on (571)272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elisa M Rice/  
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